ORDER NO. AD7403-069

Service Manual

Technics
HI-FI COMPONENTS
Technics

Stereo Integrated Amplifier

MODEL SU-3200

TECHNICAL SPECIFICATION (IHF)

MAIN AMPLIFIER SECTIONS

Music Power:		80W (4Ω), 60W (8Ω)
1kHz continuous power:		
	each channel driven	29W/29W (4Ω)
		24W/24W (8Ω)
	both channels driven	23W+23W (4Ω)
		20W+20W (8Ω)
20Hz~20kHz continuous power:		
	both channels driven	19W+19W (4Ω)
		18W+18W (8Ω)
Total harmonic distortion:		0.3%
Intermodulation distortion:		0.3%
Power bandwidth: (both channels driven at 8Ω)		5Hz~100kHz, −3dB
Residual hum and noise:		0.3mV
Damping factor:		35 (4Ω), 70 (8Ω)
Load impedance:	MAIN or REMOTE	4~16Ω
	MAIN+REMOTE	8~16Ω

PRE AMPLIFIER SECTION

Input sensitivity and impedance:	PHONO 1, 2	2mV/50kΩ
	TUNER, AUX 1,2	100mV/40kΩ
	TAPE DECK 1, 2 (PLAYBACK)	100mV/40kΩ
	TAPE DECK 1 REC/PLAY (Input)	100mV/40kΩ
PHONO 1, 2 maximum input voltage:		210mV
Total harmonic distortion:		0.3%
S/N:	PHONO 1, 2	70dB
	TUNER, AUX 1, 2	90dB
Frequency response:		
	PHONO 1, 2	RIAA standard curve ±0.5dB
	TUNER, AUX 1, 2	7Hz~100kHz, +0dB, −3dB
Tone control:	BASS	50Hz, +11dB~−11dB
	TREBLE	20kHz, +11dB~−11dB
Filter:	LOW	40Hz, −6dB/oct
	HIGH	8kHz, −6dB/oct
Loudness control (volume at -30dB):		100Hz, +8dB
Output voltage and impedance:		
	TAPE DECK 1, 2 (REC OUT)	100mV/500Ω
	TAPE DECK 1 REC/PLAY (Output)	30mV/ 80kΩ

GENERAL

Power supply:	110/120/220/240V
Power consumption:	210W
Dimensions (W×H×D):	16-1/8"×5-1/2"×13-3/8" (410×140×340) mm
Weight:	16.7 lbs. (7.6kg)

TECHNISCHE DATEN (DIN 45 500)

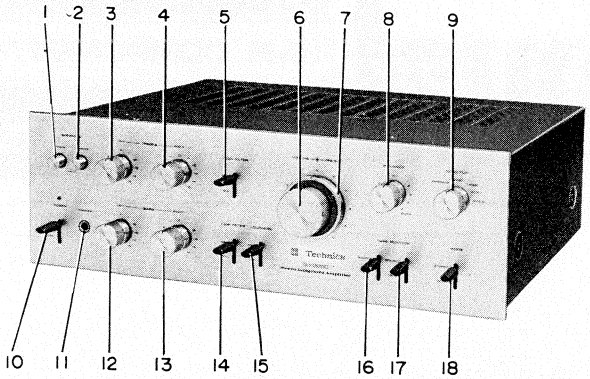
VERSTÄRKERTEIL

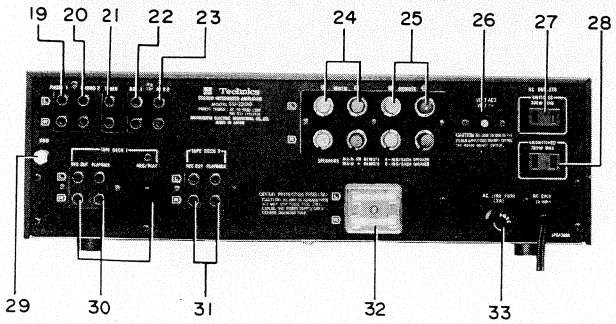
Musikleistung:		2×40W (4Ω), 2×30W (8Ω)
RMS-Dauertonleistung bei 1kHz:		
beide Kanäle zusammen ausgesteuert		2×23W (4Ω)
		2×20W (8Ω)
20Hz~20kHz RMS-Dauertonleistung:		
beide Kanäle zusammen ausgesteuert		2×19W (4Ω)
		2×18W (8Ω)
Harmonische Verzerrungen:	Nennleistung bei 1kHz 4Ω	0.3%
	Nennleistung bei 40Hz~16000Hz 4Ω	0.3%
Intermodulationsverzerrung:		
Nennleistung bei 250Hz: 8000Hz=4:1 4Ω		0.3%
Leistungsbandbreite:		
(beide Kanäle zusammen ausgesteuert bei 4Ω)		5Hz~100kHz, −3dB
Frequenzgang:		7Hz~100kHz, +0dB, −3dB
Fremdspannungsabstand:	Nennleistung PHONO	57dB
	AUX	86dB
	50mW Ausgangsleistung PHONO	53dB
	AUX	54dB
Dämpfungsfaktor:		35 (4Ω), 70 (8Ω)
Endimpedanz:	MAIN oder REMOTE	4~16Ω
	MAIN+REMOTE	8~16Ω
Eingangsempfindlichkeit & Impedanz:		
	PHONO 1, 2	2mV/50kΩ
	TUNER, AUX 1, 2	100mV/40kΩ
	TAPE DECK 1, 2 (PLAYBACK)	100mV/40kΩ
	TAPE DECK 1 REC/PLAY (Wiedergabe)	100mV/40kΩ
PHONO 1, 2 Maximal Eingangspannungen:		210mV
Klangregler:	Bässe	50Hz, +11dB~−11dB
	Höhen	20kHz, +11dB~−11dB
Filter:	Rumpel	40Hz, −6dB/oct
	Rausch	8kHz, −6dB/oct
Gehörrichtige Lautstärkekontur: (Lautstärke −30dB)		100Hz, +8dB
Ausgangsspannungen & Impedanz:	TAPE DECK 1, 2 (REC OUT)	100mV/500Ω
	TAPE DECK 1 REC/PLAY (Aufnahme)	30mV/80kΩ

ALLGEMEINE DATEN

Netzspannung Umschaltbar:	110/120/220/240V
Leistungsaufnahme:	210W
Abmessungen (B×H×T):	410×140×340mm
Gewicht:	7.6kg

■ LOCATION OF CONTROLS

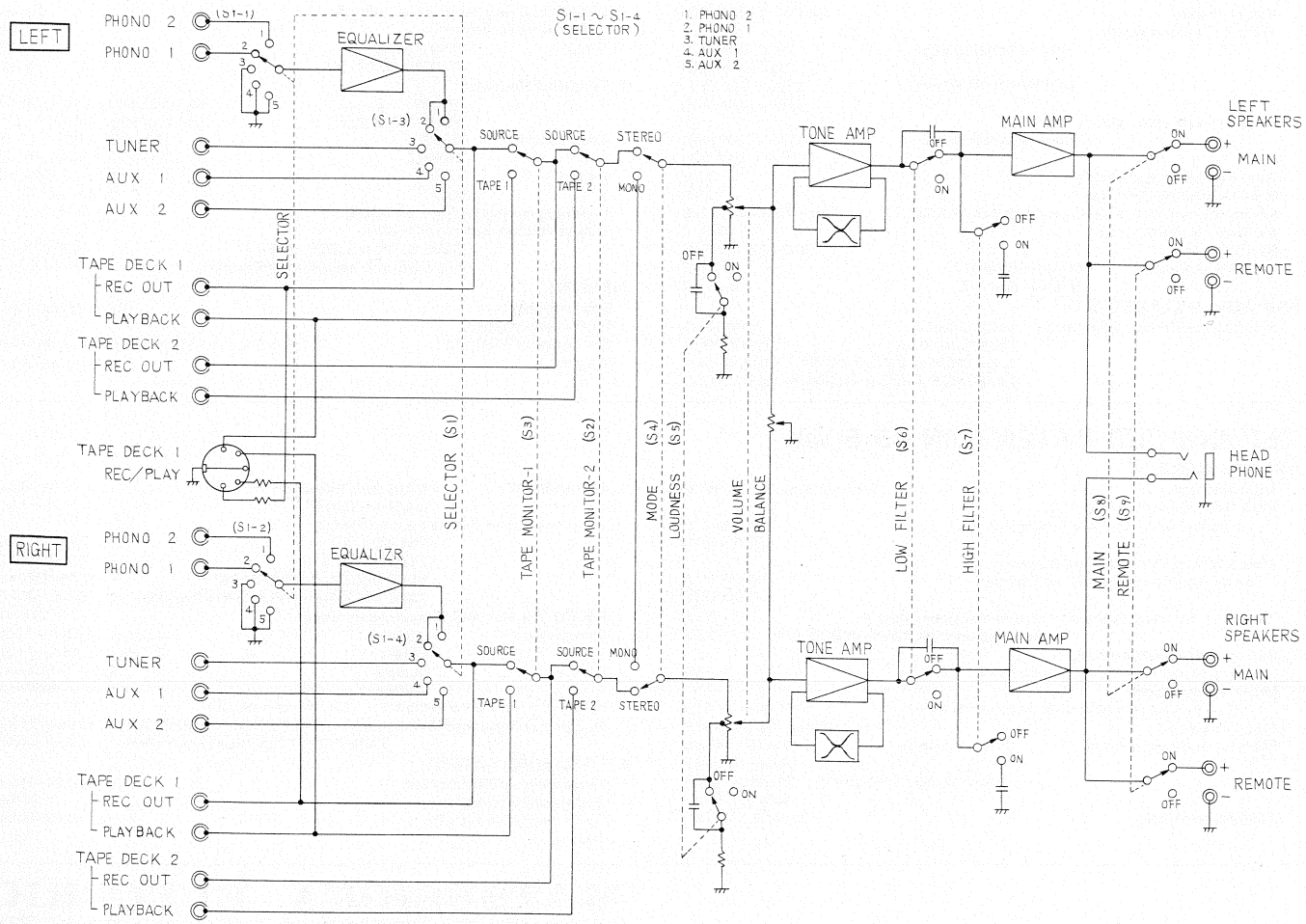




1. MAIN SPEAKER SWITCH [S8]
2. REMOTE SPEAKER SWITCH [S9]
3. LEFT TREBLE CONTROL
4. RIGHT TREBLE CONTROL
5. HIGH FILTER SWITCH [S7]
6. VOLUME CONTROL
7. PRE-SET
8. BALANCE CONTROL
9. SELECTOR SWITCH [S1]
10. POWER SOURCE SWITCH [S10]
11. HEADPHONES JACK
12. LEFT BASS CONTROL
13. RIGHT BASS CONTROL
14. LOW FILTER SWITCH [S6]
15. LOUDNESS SWITCH [S5]
16. TAPE MONITOR (TAPE 1) SWITCH [S3]
17. TAPE MONITOR (TAPE 2) SWITCH [S2]
18. MODE SWITCH [S4]

19. PHONO 1 INPUT TERMINALS
20. PHONO 2 INPUT TERMINALS
21. TUNER INPUT TERMINALS
22. AUX 1 INPUT TERMINALS
23. AUX 2 INPUT TERMINALS
24. MAIN SPEAKER TERMINALS
25. REMOTE SPEAKER TERMINALS
26. VOLTAGE SELECTOR SWITCH [S11]
27. AC OUTLET ..... Switched
28. AC OUTLET ..... Unswitched
29. GROUND TERMINAL
30. TAPE DECK 1 CONNECTION TERMINALS
31. TAPE DECK 2 CONNECTION TERMINALS
32. CIRCUIT PROTECTION FUSES
33. AC LINE FUSE

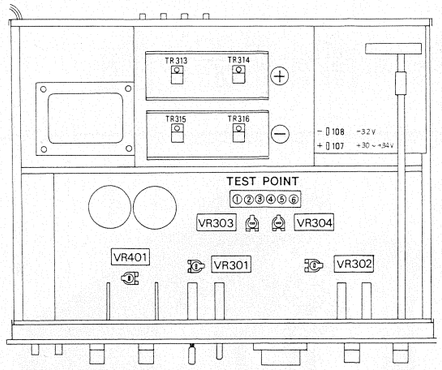
■ BLOCK DIAGRAM



■ ALIGNMENT INSTRUCTIONS

—CAUTION—

Take care not to short-circuit among the heat sink for TR313 · TR314, heat sink for TR315 · TR316 and chassis, because the heat sink for TR313 · TR314 is positive voltage line and the heat sink for TR315 · TR316 is negative voltage line.



Alignment Points

ALIGNMENT INSTRUCTIONS ..... READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

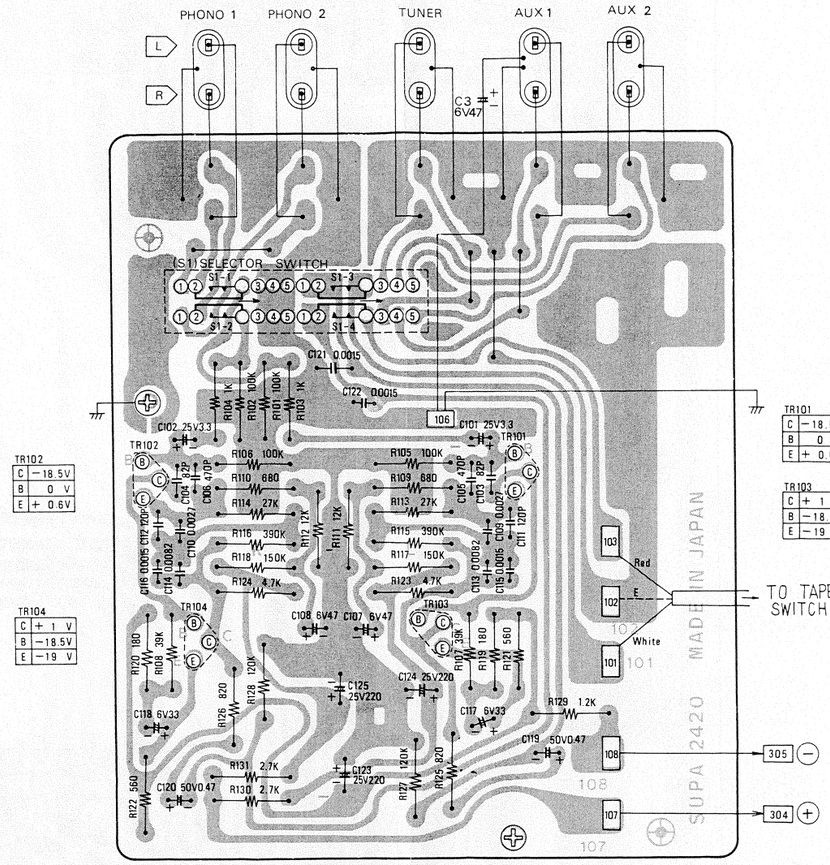
Notes :
1. Volume control ..... Minimum.
2. Maintain line voltage at rated voltage.
3. Before adjusting, Icq adjusting volumes (VR303 and VR304) should be turned to the left side completely.
4. The Icq adjustment should be started about 5 minutes after setting the power switch to the ON position.

ALIGNMENT	DC VTVM CONNECTION	ADJUSTMENT POINT	REMARKS
NEGATIVE POWER VOLTAGE	Connect DC VTVM to test point No. 108 Terminal. Common to chassis.	VR401	Make sure that DC VTVM becomes negative (–)32V.
DC UNBALANCE	Left Channel ..... Cannect DC VTVM to test point No. ① and No. ③ terminal.	VR301	Make sure that DC VTVM becomes zero (0)V.
	Right Channel..... Connect DC VTVM to test point No. ⑥ and No. ④ terminal.	VR302	
Icq	Left Channel ..... Connect DC VTVM to test point No. ① (+) and No. ② (–) terminal.	VR303	Make adjustments so that the indication on DC VTVM becomes 10mV.
	Right Channel..... Connect DC VTVM to test point No. ⑥ (+) and No. ⑤ (–) terminal.	VR304	

■ TO REMOVE CHASSIS

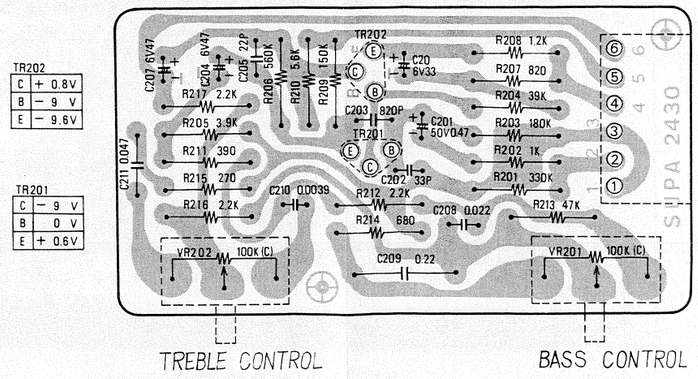
1. Remove six (6) cabinet mounting black screws. Refer to CA13 and CA17 of Cabinet & Chassis Parts Location on page 7.
2. Remove cabinet from chassis.
3. Remove fif-teen (15) control knobs from front Panel. Refer to Cabinet & Chassis Parts Location on page 7.
4. Remove three (3) front panel mounting black screws. Refer to CA9 and CA10 of Cabinet & Chassis Parts Location on page 7.
5. Remove front panel from chassis.
6. Remove five (5) bottom board mounting red screws. Refer to CA23 of Cabinet & Chassis Parts Location on page 7.
7. Remove bottom board from chassis.

SELECTOR SWITCH & EQUALIZER Circuit Board

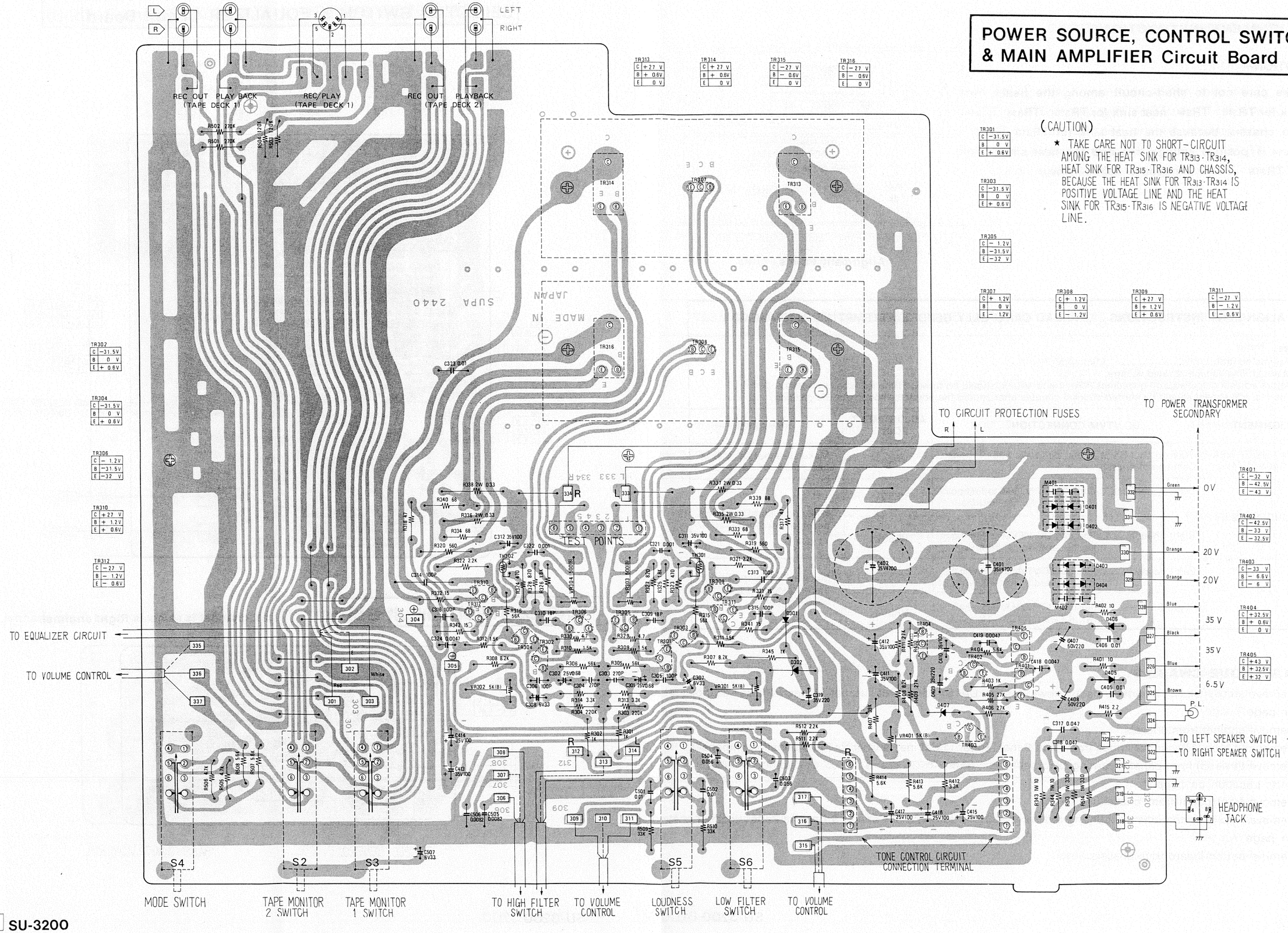


TONE CONTROL Circuit Board

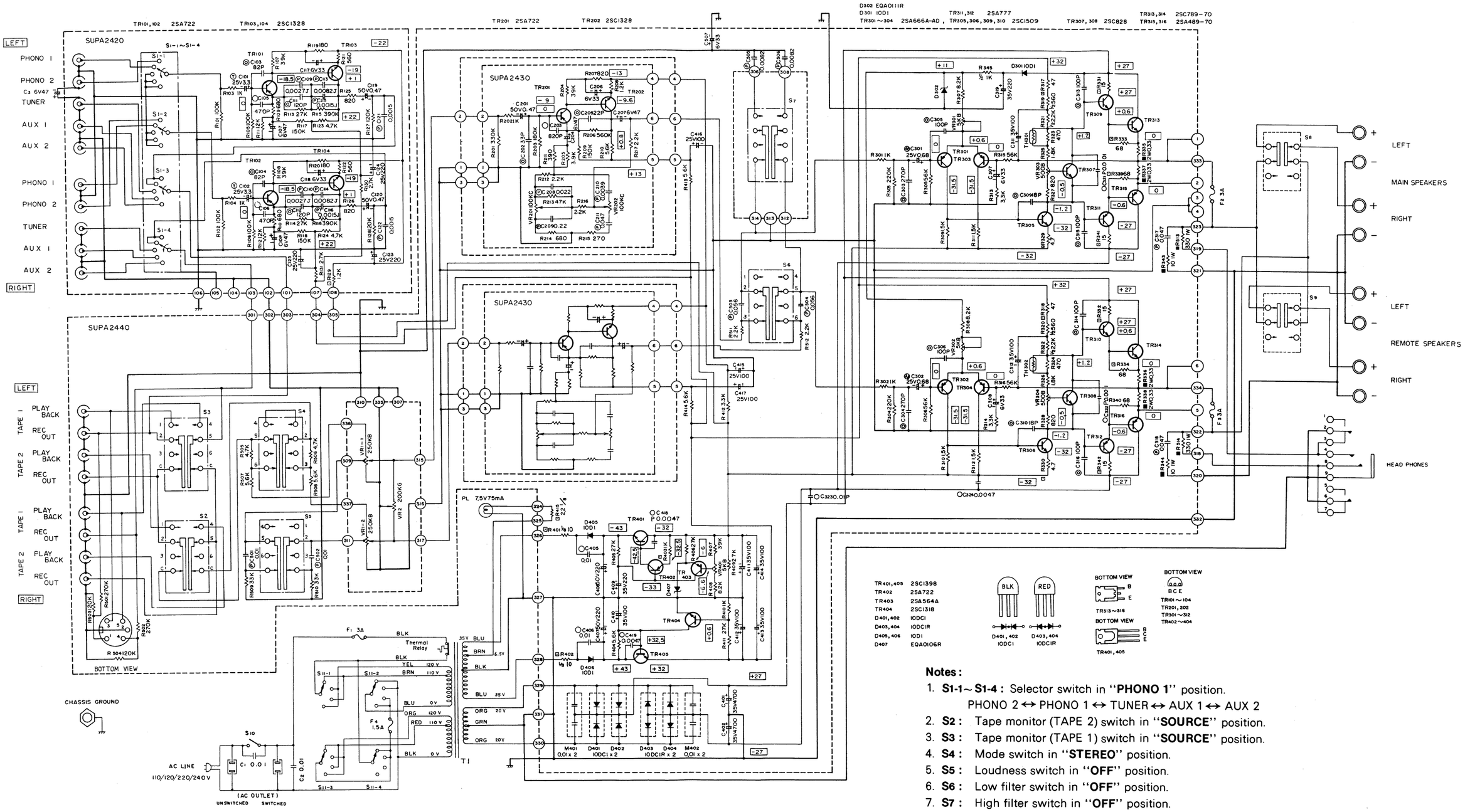
Left channel is same as Right channel.



POWER SOURCE, CONTROL SWITCHES & MAIN AMPLIFIER Circuit Board


L
R
LEFT
RIGHT
REC OUT PLAY BACK (TAPE DECK 1)
REC/PLAY (TAPE DECK 1)
REC OUT PLAYBACK (TAPE DECK 2)
R502 270K
R501 270K
R504 470
R503 470
TR313 C +27 V B +0.6V E 0 V
TR314 C +27 V B +0.6V E 0 V
TR315 C −27 V B −0.6V E 0 V
TR316 C −27 V B −0.6V E 0 V
TR314
TR307
TR313
TR316
TR309
TR315
SUPA 2440
JAPAN
MADE IN
C313 0.01
TR302 C −31.5V B 0 V E +0.6V
TR304 C −31.5V B 0 V E +0.6V
TR306 C −1.2V B −31.5V E −32 V
TR310 C +27 V B +1.2V E +0.6V
TR312 C −27 V B −1.2V E −0.6V
TR301 C −31.5V B 0 V E +0.6V
TR303 C −31.5V B 0 V E +0.6V
TR305 C −1.2V B −31.5V E −32 V
TR307 C +1.2V B 0 V E −1.2V
TR308 C +1.2V B 0 V E −1.2V
TR309 C +27 V B +1.2V E +0.6V
TR311 C −27 V B −1.2V E −0.6V
(CAUTION)
★ TAKE CARE NOT TO SHORT-CIRCUIT AMONG THE HEAT SINK FOR TR313·TR314, HEAT SINK FOR TR315·TR316 AND CHASSIS, BECAUSE THE HEAT SINK FOR TR313·TR314 IS POSITIVE VOLTAGE LINE AND THE HEAT SINK FOR TR315·TR316 IS NEGATIVE VOLTAGE LINE.
TO CIRCUIT PROTECTION FUSES
TO POWER TRANSFORMER SECONDARY
TR401 C −32 V B −42.5V E −43 V
TR402 C −42.5V B −33 V E −32.5V
TR403 C −33 V B −6.6V E −6 V
TR404 C +32.5V B +0.6V E 0 V
TR405 C +43 V B +32.5V E +32 V
Green 0V
Orange 20 V
Orange 20V
Blue 35 V
Black
Blue 35V
Brown 6.5V
P.L.
TO LEFT SPEAKER SWITCH
TO RIGHT SPEAKER SWITCH
HEADPHONE JACK
TEST POINTS
TO EQUALIZER CIRCUIT
TO VOLUME CONTROL
White
Red
TONE CONTROL CIRCUIT CONNECTION TERMINAL
S4
S2
S3
S5
S6
MODE SWITCH
TAPE MONITOR 2 SWITCH
TAPE MONITOR 1 SWITCH
TO HIGH FILTER SWITCH
TO VOLUME CONTROL
LOUDNESS SWITCH
LOW FILTER SWITCH
TO VOLUME CONTROL

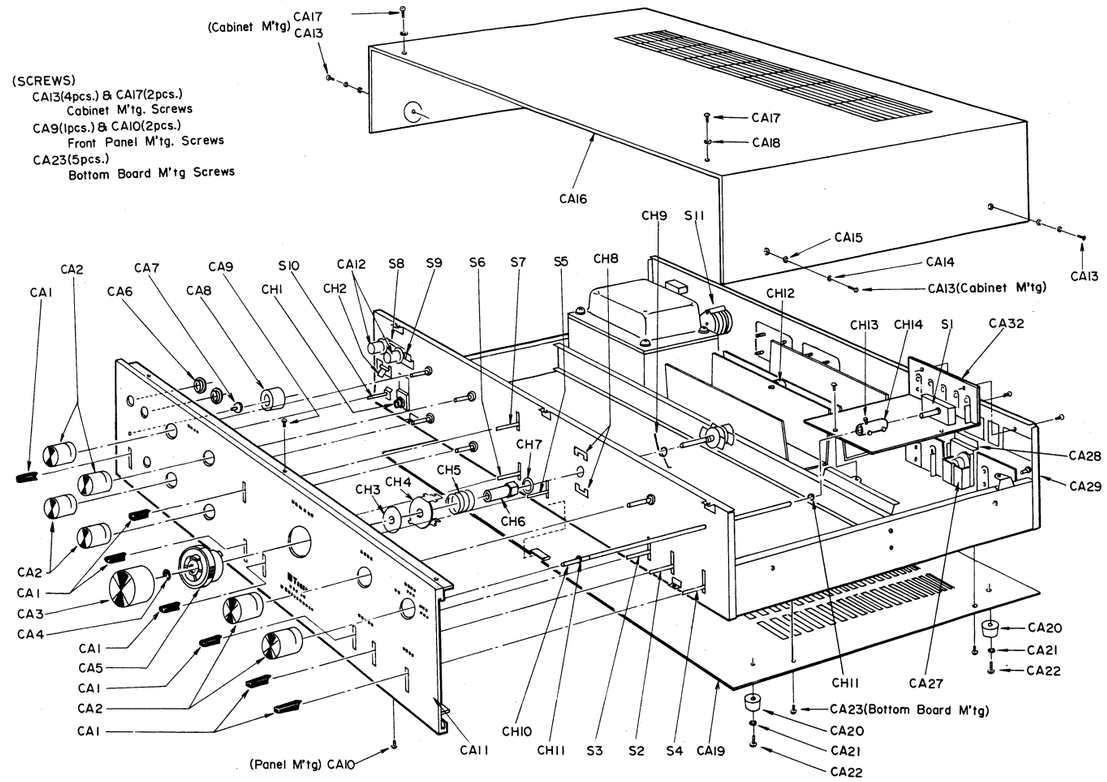
Schematic Diagram ..... Model SU-3200 (This schematic diagram may be modified at any time with the development of new technology.)

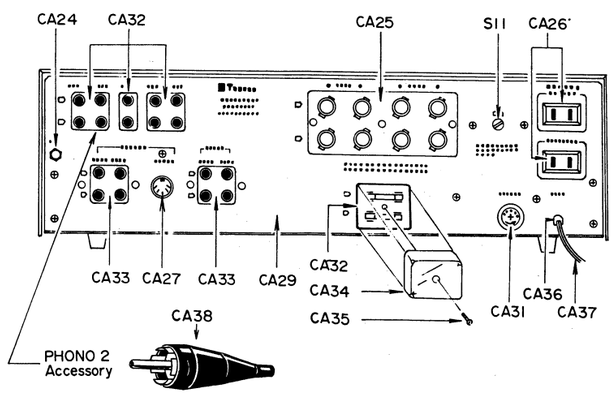


Notes :

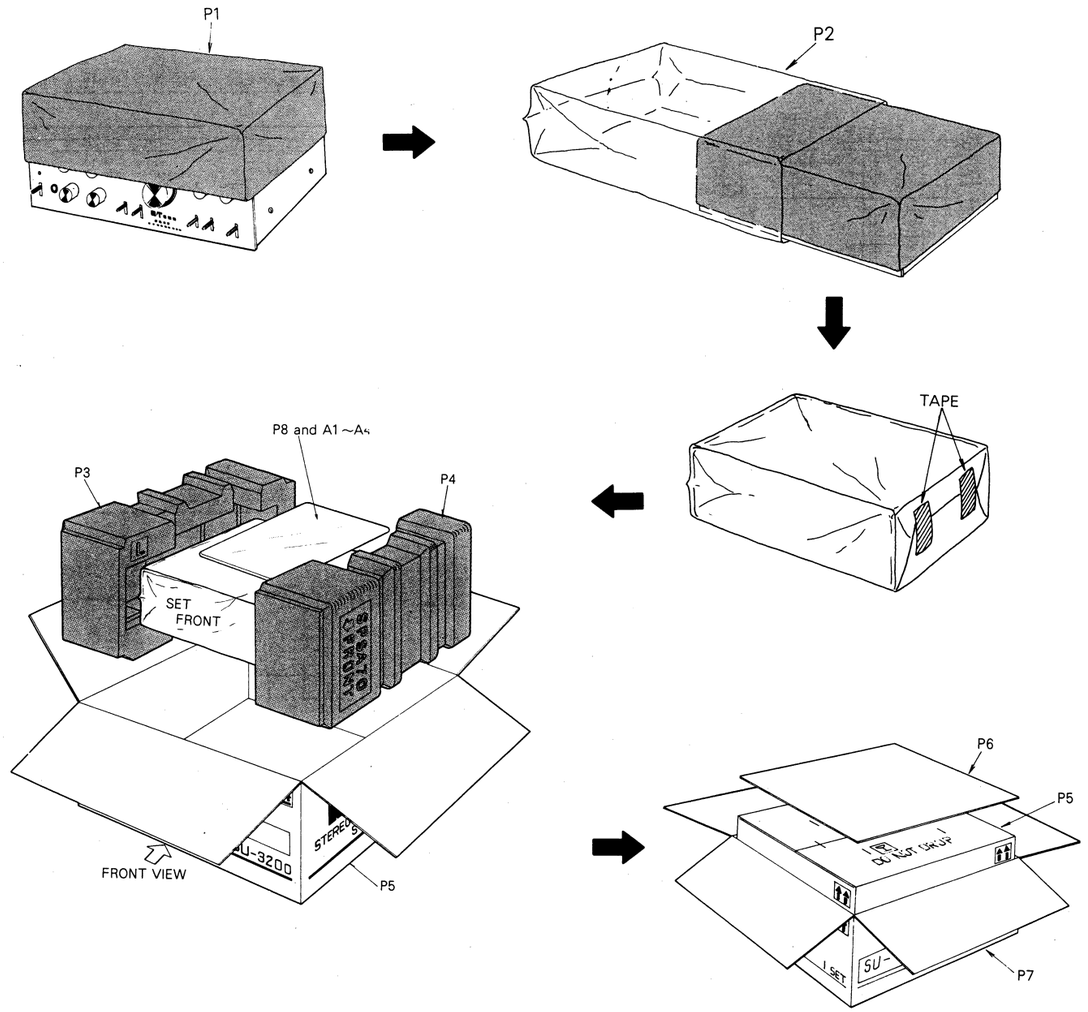
1. **S1-1 ~ S1-4 :** Selector switch in "**PHONO 1**" position.
   PHONO 2 ↔ PHONO 1 ↔ TUNER ↔ AUX 1 ↔ AUX 2
2. **S2 :** Tape monitor (TAPE 2) switch in "**SOURCE**" position.
3. **S3 :** Tape monitor (TAPE 1) switch in "**SOURCE**" position.
4. **S4 :** Mode switch in "**STEREO**" position.
5. **S5 :** Loudness switch in "**OFF**" position.
6. **S6 :** Low filter switch in "**OFF**" position.
7. **S7 :** High filter switch in "**OFF**" position.
8. **S8 :** Main speaker switch in "**ON**" position.
9. **S9 :** Remote speaker switch in "**ON**" position.
10. **S10 :** Power source switch in "**OFF**" position.
11. **S11-1 ~ S11-4 :** Power source voltage selector switch in "**110V**" position.
    110V ↔ 120V ↔ 220V ↔ 240V
12. DC voltage measurements are taken with DC VTVM from chassis ground.

■ CABINET & CHASSIS PARTS LOCATION

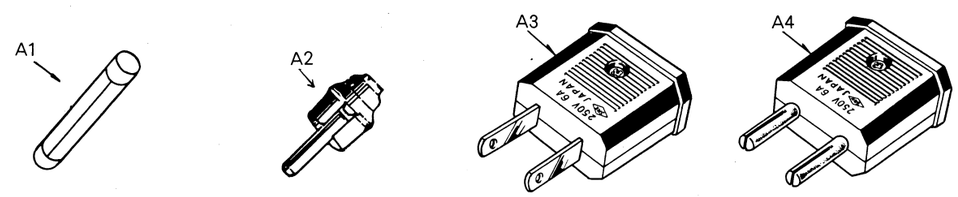




■ PACKINGS



■ ACCESSORIES



■ REPLACEMENT PARTS LIST

NOTES :

1. Part numbers are indicated on most mechanical parts. Please use this part number, for parts orders.
2. **X-Z** rank: **X** rank parts will cover 80% of repair needs.
   X + Y rank parts will cover 95% of repair needs.
   Z rank parts are less necessary.

Bemerkungen :

1. Die meisten mechanischen Teile sind mit Teilnummern versehen. Bitte geben Sie diese Nummern an, sofern die Teile keine Bezugsnummern haben.
2. Gruppen **X-Z** : Teile der Gruppe **X** machen 80% des Erstzteilbedarfes aus. Teile der Gruppen **X** und **Y** machen 95% des Ersatzteilbedarfes aus. Teile der Gruppe **Z** werden seltener benötigt.

Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks
TRANSISTORS				
TR101, 102, 201(×2), 402	2SA722T	Equalizer, Tone & DC Amplifier	5	X
TR103, 104, 202(×2)	2SC1328T	Equalizer & Tone Amplifier	4	X
TR301, 302, 303, 304	2SA666A-AD3	Differential Amplifier	4	X
TR307, 308	2SC828R	Thermal Compensation	2	X
TR305, 306, 309, 310	2SC1509Q	Pre Driver & Driver Amplifier	4	X
TR311, 312	2SA777Q	Driver Amplifier	2	X
TR313, 314	2SC789-70(O)	Power Amplifier	2	○ X
TR315, 316	2SA489-70(O)	Power Amplifier	2	○ X
TR401, 405	2SC1398Q	DC Voltage Control	2	○ X
TR403	2SA564A-R	An Error Voltage Detector	1	X
TR404	2SC1318R	DC Amplifier	1	X
DIODES				
D401, 402	RVD10DC1	Rectifier	2	X
D403, 404	RVD10DC1R	Rectifier	2	X
D301, 405, 406	RVD10D1	Shock Noise Cancel & Rectifier	3	X
D407	SVDAEQA0106R	6V Zener, Voltage Stabilizer	1	X
D302	SVDAEQA0111R	11V Zener, Voltage Stabilizer	1	X
TRANSFORMER and THERMISTORS				
T1	SLTA5P30S	Power Transformer	1	○ X
TH301, 302	RRT251	Thermistor, Driver Circuit	2	Y
RESISTORS				
R119, 120	ERD14TJ181	180Ω, 1/4W, ± 5%, Carbon	2	Y
R215(×2)	ERD14TJ271	270Ω, 1/4W, ± 5%, Carbon	2	Y
R211(×2)	ERD14TJ391	390Ω, 1/4W, ± 5%, Carbon	2	Y
R323, 324	ERD14TJ471	470Ω, 1/4W, ± 5%, Carbon	2	Y
R121, 122	ERD14TJ561	560Ω, 1/4W, ± 5%, Carbon	2	Y
R109, 110, 214(×2)	ERD14TJ681	680Ω, 1/4W, ± 5%, Carbon	4	Y
R125, 126, 207(×2), 327, 328	ERD14TJ821	820Ω, 1/4W, ± 5%, Carbon	6	Y
R103, 104, 202(×2), 301, 302, 410	ERD14TJ102	1kΩ, 1/4W, ± 5%, Carbon	7	Y
R208(×2)	ERD14TJ122	1.2kΩ, 1/4W, ± 5%, Carbon	2	Y
R309, 310, 311, 312	ERD14TJ152	1.5kΩ, 1/4W, ± 5%, Carbon	4	Y
R325, 326	ERD14TJ182	1.8kΩ, 1/4W, ± 5%, Carbon	2	Y
R212(×2), 216(×2), 217(×2), 511, 512	ERD14TJ222	2.2kΩ, 1/4W, ± 5%, Carbon	8	Y
R130, 131	ERD14TJ272	2.7kΩ, 1/4W, ± 5%, Carbon	2	Y
R313, 314, 412	ERD14TJ332	3.3kΩ, 1/4W, ± 5%, Carbon	3	Y
R205(×2)	ERD14TJ392	3.9kΩ, 1/4W, ± 5%, Carbon	2	Y
R123, 124, 505, 506	ERD14TJ472	4.7kΩ, 1/4W, ± 5%, Carbon	4	Y
R210(×2), 404, 413, 414, 507, 508	ERD14TJ562	5.6kΩ, 1/4W, ± 5%, Carbon	7	Y
R307, 308, 408	ERD14TJ822	8.2kΩ, 1/4W, ± 5%, Carbon	3	Y
R111, 112	ERD14TJ123	12kΩ, 1/4W, ± 5%, Carbon	2	Y
R113, 114, 405, 406, 409, 411	ERD14TJ273	27kΩ, 1/4W, ± 5%, Carbon	6	Y
R509, 510	ERD14TJ333	33kΩ, 1/4W, ± 5%, Carbon	2	Y
R107, 108, 407, 204(×2)	ERD14TJ393	39kΩ, 1/4W, ± 5%, Carbon	5	Y
R213(×2)	ERD14TJ473	47kΩ, 1/4W, ± 5%, Carbon	2	Y
R305, 306, 315, 316	ERD14TJ563	56kΩ, 1/4W, ± 5%, Carbon	4	Y
R127, 128, 503, 504	ERD14TJ124	120kΩ, 1/4W, ± 5%, Carbon	4	Y
R117, 118, 209(×2)	ERD14TJ154	150kΩ, 1/4W, ± 5%, Carbon	4	Y
R303, 304	ERD14TJ224	220kΩ, 1/4W, ± 5%, Carbon	2	Y
R501, 502	ERD14TJ274	270kΩ, 1/4W, ± 5%, Carbon	2	Y
R115, 116	ERD14TJ394	390kΩ, 1/4W, ± 5%, Carbon	2	Y
R206(×2)	ERD14TJ564	560kΩ, 1/4W, ± 5%, Carbon	2	Y
R101, 102, 105, 106	ERD14TSJ104	100kΩ, 1/4W, ± 5%, Carbon	4	Y
R203(×2)	ERD14TSJ184	180kΩ, 1/4W, ± 5%, Carbon	2	Y
R201(×2)	ERD14TSJ334	330kΩ, 1/4W, ± 5%, Carbon	2	Y
R329, 330	ERD14FJ4R7	4.7Ω, 1/4W, ± 5%, Carbon	2	Y
R331, 332, 341, 342	ERD14FJ150	15Ω, 1/4W, ± 5%, Carbon	4	Y
R317, 318	ERD14FJ470	47Ω, 1/4W, ± 5%, Carbon	2	Y
R333, 334, 339, 340	ERD14FJ680	68Ω, 1/4W, ± 5%, Carbon	4	Y
R403	ERD14FJ102	1kΩ, 1/4W, ± 5%, Carbon	1	Y
R129	ERD14FJ122	1.2kΩ, 1/4W, ± 5%, Carbon	1	Y
R319, 320	ERD14FJ561	560Ω, 1/2W, ± 5%, Carbon	2	Y
R345	ERD12TJ102	1kΩ, 1/2W, ± 5%, Carbon	1	Y
R321, 322	ERD12TJ222	2.2kΩ, 1/2W, ± 5%, Carbon	2	Y
R415	ERD18FJ2R2	2.2Ω, 1/8W, ± 5%, Carbon	1	Y
R401, 402	ERD18FJ100	10Ω, 1/8W, ± 5%, Carbon	2	Y
R335, 336, 337, 338	ERX2ANJR33	0.33Ω, 2W, ± 5%, Metallic	4	Y
R343, 344	ERX1ANJ100	10Ω, 1W, ± 5%, Metallic	2	Y
R513, 514	ERG1ANJ331	330Ω, 1W, ± 5%, Metallic	2	Y
VARIABLE RESISTORS				
VR1	EVG63A041BF5	250kΩ(B), Volume Control	1	X
VR2	EVEDVA083G25	200kΩ(G), Balance Control	1	○ X
VR201(×2), 202(×2)	EVC82A082C15	100kΩ(C), Bass & Treble Control	4	X
VR303, 304	EVLS3AA00B52	500Ω(B), IcQ Adjustment	2	X
VR301, 302, 401	EVLS3AA00B53	5kΩ(B), DC Unbalance & Voltage Stabilizer Adjustment	3	X
CAPACITORS				
C309, 310	ECCD1H180K	18pF, 50WV, ±10%, Ceramic	2	Z
C205(×2)	ECCD1H220K	22pF, 50WV, ±10%, Ceramic	2	Z
C202(×2)	ECCD1H330K	33pF, 50WV, ±10%, Ceramic	2	Z
C103, 104	ECCD1H820K	82pF, 50WV, ±10%, Ceramic	2	Z
C305, 306, 313, 314, 315, 316	ECCD1H101K	100pF, 50WV, ±10%, Ceramic	6	Z
C111, 112	ECCD1H121K	120pF, 50WV, ±10%, Ceramic	2	Z
C303, 304	ECCD1H271K	270pF, 50WV, ±10%, Ceramic	2	Z
C105, 106	ECKD1H471KB	470pF, 50WV, ±10%, Ceramic	2	Z
C321, 322	ECKD1H102PF	0.001μF, 50WV, $^{+100}_{-0}$%, Ceramic	2	Z
C324, 418, 419	ECKD1H472PF	0.0047μF, 50WV, $^{+100}_{-0}$%, Ceramic	3	Z
C203(×2)	ECKD2H821KB	820pF, 500WV, ±10%, Ceramic	2	Z
C323	ECKD2H103PF	0.01μF, 500WV, $^{+100}_{-0}$%, Ceramic	1	Z
C405, 406	ECKE1H103PF	0.01μF, 50WV, $^{+100}_{-0}$%, Ceramic	2	Z
C1, 2	ECQU2A103MD	0.01μF, 250VAC, ±20%, Polyester	2	Z
C115, 116	ECQM05152JZ	0.0015μF, 50WV, ± 5%, Polyester	2	Z
C121, 122	ECQM05152KZ	0.0015μF, 50WV, ±10%, Polyester	2	Z
C109, 110	ECQM05272JZ	0.0027μF, 50WV, ± 5%, Polyester	2	Z
C210(×2)	ECQM05392KZ	0.0039μF, 50WV, ±10%, Polyester	2	Z
C113, 114	ECQM05822JZ	0.0082μF, 50WV, ± 5%, Polyester	2	Z
C505, 506	ECQM05822KZ	0.0082μF, 50WV, ±10%, Polyester	2	Z
C501, 502	ECQM05103KZ	0.01μF, 50WV, ±10%, Polyester	2	Z
C208(×2)	ECQM05223KZ	0.022μF, 50WV, ±10%, Polyester	2	Z
C211(×2), 317, 318	ECQM05473KZ	0.047μF, 50WV, ±10%, Polyester	4	Z
C503, 504	ECQM05563KZ	0.056μF, 50WV, ±10%, Polyester	2	Z
C209(×2)	ECQM05224KZ	0.22μF, 50WV, ±10%, Polyester	2	Z
C101, 102	ECSZ25EF3R3	3.3μF, 25WV, Electrolytic	2	Y
C301, 302	ECAG25ER68X	0.68μF, 25WV, Electrolytic	2	Y
C117, 118, 206(×2), 307, 308, 507	ECEA6V33	33μF, 6.3WV, Electrolytic	7	Y
C3, 107, 108, 204(×2), 207(×2)	ECEA6V47	47μF, 6.3WV, Electrolytic	7	Y
C415, 416, 417	ECEA25V100	100μF, 25WV, Electrolytic	3	Y
C123, 124, 125	ECEA25V220	220μF, 25WV, Electrolytic	3	Y
C319, 409	ECEA35V220	220μF, 35WV, Electrolytic	2	Y
C311, 312, 410	ECEA35V100	100μF, 35WV, Electrolytic	3	Y

Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks
C411, 412, 413, 414	ECEA35V100V	100μF, 35WV, Electrolytic	4	Y
C119, 120, 201(×2)	ECEA50VR47G	0.47μF, 50WV, Electrolytic	4	Y
C407, 408	ECEA50V220	220μF, 50WV, Electrolytic	2	Y
C401, 402	ECET35R4700Y	4700μF, 35WV, Electrolytic	2	Y
COMPONENT COMBINATIONS				
M401, 402	RXAF103P22HD	Hum Canceler, 0.01μF(×2), 500WV	2	Y
SWITCHES				
S1	SSRA58	Selector Switch	1	X
S2, 3, 4, 5, 6	SSLA23S	Tape Monitor, Mode & Low Filter Switch	5	X
S7	SSLA24S	High Filter Switch	1	X
S8, 9	SSHA42	Speakers Switch	1	X
S10	SSLA27S	Power Source Switch	1	X
S11	SSRA7S	Voltage Selector Switch	1	X
FUSES and LIGHT				
F1	XBAS2A3002	Fuse, 3A Power Source	1	○ X
F2, 3	XBAS1A3001	Fuse, 3A Circuit Protection	2	X
F4	XBAS2B1501	Fuse, 1.5A Power Source	1	○ X
PL	XAM37K150	Pilot Lamp(7.5V 75mA)	1	X
CABINET PARTS				
CA1	SBLA3	Knob, Lever Switches	7	X
CA2	SBNA95-2E	Knob, Tone Controls, Balance Control & Selector Switch	6	X
CA3	SBNA114E	Knob, Volume Control	1	X
CA4	XUC8FE	E-ring, Pre-Set	1	Y
CA5	SBNA115E	Pre-Set	1	X
CA6	SGXA6004	Bracket, Speaker Switch Button	2	Z
CA7	SGLA9	Panel Light	1	Z
CA8	SHRA601	Bracket, Pilot Lamp	1	Z
CA9	XSS3+6KS	Screw, Front Panel M'tg.	1	Z
CA10	XTV3D8CK	Screw, Front Panel M'tg.	2	Z
CA11	SGWA1240	Front Panel	1	○ Y
CA12	SBCA50	Button, Speaker Switches	2	Y
CA13	XSB4+10KS	Screw, Cabinet M'tg.	4	Z
CA14	XWA4BK	Spring Washer, Cabinet Screw	4	Z
CA15	XWG4K	Washer, Cabinet Screw	4	Z
CA16	SKAA691	Cabinet	1	Y
CA17	XSB3+8KS	Screw, Cabinet M'tg.	2	Z
CA18	XWG3K	Washer, Cabinet Screw	2	Z
	SYUA81A	Bottom Board, Complete	1	Y
CA19	SKUA351	Bottom Board Only	1	Z
CA20	SHGA929	Leg	4	Z
CA21	XWG3F10	Washer, Leg Screw	4	Z
CA22	XTN3D12B	Screw, Leg M'tg.	4	Z
CA23	XTB4+8BR	Red Screw, Botton Board M'tg.	5	Z

Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks
	SYPA232AS	Rear Panel, Complete	1	○ Y
CA24	SNEA404	Nut, Ground Terminal	1	Z
	SNEA204-2S	Volt, Ground Terminal	1	Z
CA25	SJFA4807	Terminal, Speakers	1	Y
CA26	SJSA66	Socket, AC Outlet	2	Y
CA27	SJS6505	DIN Socket, Tape Monitor	1	Y
CA28	SMKA15S	Mounting, DIN Socket	1	○ Z
CA29	SGPA382A	Rear Panel Only	1	○ Z
CA30	SJFA5201-1	Holder, Circuit Protection Fuses	1	Y
CA31	SJFA1	Holder, Power Source Fuse	1	Y
CA32	SJFA3015	Terminal, Phono, Tuner & Aux Input	1	Y
CA33	SJFA3416	Terminal, Tape Monitor 1 & 2	2	○ Y
CA34	SJFA5202-1	Cover, Circuit Protection Fuses	1	Y
CA35	XSN26+12	Screw, Fuse Cover M'tg.	1	Z
CA36	RHR111	Bushing, AC Cord	1	Z
CA37	SJAA3	AC Cord/with AC Plug	1	Y
CA38	SJPA8	Short Pin	2	Y
CHASSIS PARTS				
CH1	SJJA14	Jack, Headphones	1	Y
CH2	SMZA6091	Bracket, Pilot Lamp	1	Z
CH3	SNWA951	Slider, Pre-Set	1	Z
CH4	SUWA167-1	Mounting, Pre-Set	1	Z
CH5	SUSA33	Coil Type Spring, Pre-Set	1	Z
CH6	SUHA8	Nut, Volume & Pre-Set	1	Z
CH7	XWV8	Washer, Nut	1	Z
CH8	SHGA943	Rubber Bracket, Pre-Set Mounting	2	Z
CH9	SUSA34-1	Spring, Pre-Set Mounting	1	Z
CH10	SUBA18	Coupling Rod, Selector Switch	1	Z
CH11	XUC5FW	E-ring, Coupling Rod	2	Y
CH12	SHGA962-1	Short Preventer, Heat Sink	1	○ Z
CH13	XXAR3H6S	Screw, Coupler M'tg.	3	Z
CH14	SUBA21S	Coupler, Selector Switch & Coupling Rod	1	Z
CH15	SJSA65	Socket, Tone Control Circuit	2	Y
ACCESSORIES				
A1	XBAS1A3001	3A Fuse, Circuit Protection	2	X
A2	RJP5	Pin Plug	4	Y
A3	RJP16AS	AC Plug	1	Y
A4	RJP17AS	AC Plug	1	Y
PACKING PARTS				
P1	SPPA16-1	Soft Cover	1	Z
P2	SPP163	Polyethylene Bag	1	Z
P3	SPSA73	Pad, Left Side	1	Z
P4	SPSA70	Pad, Right Side	1	Z
P5	SPNA240A	Carton Box, Inner	1	○ Z
P6	SPSA30	Pad, Between Inner & Outer Carton	1	Z
P7	SPGA480A	Carton Box, Outer	1	○ Z
P8	SQFA192	Printed Matter, Complete	1	○ Y
	SQXA5115	Instructions Book(Order SQFA192)	(1)	

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2500- Ⓚ